

WE CLAIM

1. A method of notifying a first communication network of a fault related to a second communication network, said first communication network connected to said second communication network, said first communication network having a first OAM protocol adapted to monitor integrity of said first communication network, said second communication network having a second OAM protocol adapted to monitor integrity of said second communication network, said method comprising:

detecting said fault related to said second communication network;
generating a first OAM cell of said first OAM protocol indicating detection of said fault;
transmitting said first OAM cell to said first communication network to indicate said fault to said first communication network.

2. The method of notifying a first communication network of a fault related to a second communication network as claimed in claim 1, wherein said first communication network is connected with said second communication network at a network element.

3. A method of notifying a first communication network of a fault related to a second communication network as claimed in claim 2, wherein said first communication network is an ATM network, said first OAM protocol is an ATM OAM protocol, said second communication network is a MPLS network and said second OAM protocol is a MPLS OAM protocol.

4. A method of notifying a first communication network of a fault related to a second communication network as claimed in claim 3, wherein said detecting said fault occurs at said network element.

5. A method of notifying a first communication network of a fault related to a second communication network as claimed in claim 4, wherein said network element is adapted to receive connectivity verification cells from said second communication network.

6. A method of notifying a first communication network of a fault related to a second communication network as claimed in claim 5, wherein said fault related to said second communication network is detected at said network element by recognition of expiry of a time interval in which a number of connectivity verification cells have not been received.

7. The method of notifying a first communication network of a fault related to a second communication network as claimed in claim 3, wherein said number of connectivity verification cells is at least three.

8. The method of notifying a first communication network of a fault related to a second communication network as claimed in claim 3, wherein said first OAM cell is an ATM AIS cell.

9. A network element for connecting a first communication network to a second communication network, said first communication network having a first communication protocol and a first OAM protocol for use in monitoring integrity of said first communication network, said second communication network having a second communication protocol and a second OAM protocol for use in monitoring integrity of said second communication network, said network element comprising:

a first section adapted to:

provide communications for said network element with said first communication network; and

notify said network element of said fault in said first communication network;
said first section detecting said faults related to said first communication network;

and

a second section adapted to

provide communications for said network element with said second
communication network;

detect that said first section has notified said network element of said fault; and
notify said second communication network of said fault.

13.¹⁰ A network element as claimed in claim 12, wherein said first communication network is a
MPLS network, said first OAM protocol is a MPLS OAM protocol, said second communication
network is an ATM network and said second OAM protocol is an ATM OAM protocol.

14.¹¹ A network element as claimed in claim 13, wherein said fault related to said first
communication network is detected by said first section after receiving an OAM cell of said first
OAM protocol.

15.¹² The network element as claimed in claim 14, wherein said OAM cell is a FDI cell.

16.¹³ The network element as claimed in claim 15, wherein

said first section is further adapted to periodically transmit connectivity verification cells
to said first communication network.

17.¹⁴ The network element as claimed in claim 16, wherein said fault in said first

communication network is detected by said first section by recognition of expiry of a time

interval without receiving at least one of said connectivity verification cells, said first section scheduled to receive a number of said connectivity verification cells in said interval.

18.¹⁵ The network element as claimed in claim 17, wherein said number of said connectivity verification cells is at least three.

5 19.¹⁶ The network element as claimed in claim 14, wherein said first OAM cell is an ATM AIS cell.